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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,655	11/21/2003	Jonathan H. Fischer	45-14-2	2375

7590 08/22/2005  
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EXAMINER

RODRIGUEZ, GLENDA P

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/719,655	Applicant(s) FISCHER ET AL.	
	Examiner Glenda P. Rodriguez	Art Unit 2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-15, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6-15, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crue et al. (US Patent No. 6, 693, 768).

Regarding Claim 1, Crue et al. teach a magnetic storage system, comprising:

At least one write coil to generate a magnetic field for at least a plurality of bit intervals (Figs. 2-4, Element 44);

A magnetic storage medium (Fig. 1, Element 16); and

At least one shutter to selectively allow said magnetic field to alter a magnetic domain of said magnetic storage medium (Col. 3, L. 36-42, wherein it teaches using a component as a “shutter” by changing the magnetic fields by changing the direction of the magnetic field to change the binary data to be recorded, which is the Applicant’s description of a “shutter” as See in the Applicant’s Specification in Page 2, L. 10-14. See Also Col. 7, L. 54 to Col. 8, L. 7).

Method claim (10) is drawn to the method of using the corresponding apparatus claimed in claim (1). Therefore method claim (10) corresponds to apparatus claim (1) and is rejected for the same reasons of obviousness as used above.

Apparatus claim (14) is drawn to the method of using the corresponding apparatus claimed in claim (1). Therefore apparatus claim (14) corresponds to apparatus claim (1) and is rejected for the same reasons of obviousness as used above.

Regarding Claims 2 and 15, Crue et al. teach all the limitations of Claims 1 and 14, respectively. Crue et al. further teach wherein having at least one pole segment to provide a loop between the rite coil and the storage medium (See Fig. 13 and Col. 7, L. 54 to Col. 8, L. 7, wherein Crue et al. teaches a loop being formed from the pole to the medium in order to be able to record a binary number.).

Regarding Claims 6, 13 and 19, Crue et al. teach all the limitations of Claims 1, 10 and 14, respectively. Crue et al. further teach wherein a position of said shutter is adjusted using a micro-electro mechanical system (Col. 2, L. 44-57).

Regarding Claims 7 and 20, Crue et al. teach all the limitations of Claims 1 and 14, respectively. Crue et al. further teach wherein at least one of said shutters is coated with a magnetic shielding (Figs. 2-4, Elements 52 & 54).

Regarding Claim 8, Crue et al. teach all the limitations of Claim 7. Crue et al. further teach wherein the magnetic shielding is comprised of Nickel (Col. 6, L. 64 wherein CoFeNi is used.).

Regarding Claim 9, Crue et al. teach all the limitations of Claim 7. Crue et al. further teach wherein the magnetic shielding is comprised of Cobalt (Col. 6, L. 64 wherein CoFeNi is used.).

Regarding Claim 11, Crue et al. teach all the limitations of Claim 1. Crue et al. further teach wherein further comprising the steps of generating a positive magnetic field and a negative

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magnetic field, and selectively allowing said positive or negative magnetic fields to alter said magnetic domain of said magnetic storage medium Col. 3, L. 36-42, and See Also Col. 7, L. 54 to Col. 8, L. 7, wherein it teaches recording a binary 0 or 1 according to its direction of the magnetic field, which is positive and negative.).

Regarding Claim 12, Crue et al. teach all the limitations of Claim 11. Crue et al. further teach wherein the positive or negative magnetic fields alter the magnetic domain in a collocated region of said magnetic medium (It is obvious that when recording a plurality of bits in the medium, these can be performed side by side or collocated).

#### *Allowable Subject Matter*

3. Claims 3-5 and 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

Regarding Claims 3 and 16, the primary reason for allowable subject matter is the inclusion of the limitation wherein a first write coil to generate a positive magnetic field and the second write coil to generate a negative, and at least two shutters to selectively allow the positive or negative magnetic fields to alter the magnetic domain of the magnetic storage medium.

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (571) 272-7561. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
gpr

Aug 16, 2005.

  
DAVID HUDSPETH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600